

Assignment-1

About : Thorough technical analysis of a large cap stock

Stock chosen : Tata Consultancy Services Ltd. (NSE)

Current Market Price (as of 16th June) : 3496.30

Overview :

The share prices of TSC have been essentially in a sideways market post a considerable fall in the month of February. However , the sideways market has a lot of indications that we can use for our technical analysis especially in the context of swing trading where one could make a fair amount of profit.

The technical indicators I've used in this analysis of TCS are the following :

1. Candle-Stick Pattern
2. Moving Average Convergence and Divergence(MACD) paired with a 9 day signal
3. Resistance and Support Lines
4. Bollinger Bands
5. Relative Strength Index (RSI)
6. Daily Volume Analysis

The following sections provide detailed analysis of the above used indicator.

Candle-Stick Pattern :

On the 13th of June , Friday , we see a bullish marubozu within acceptable error limits.

Open = 3,393.20

Close = 3,445.70

Low = 3,393.20 (= the open)

High = 3450.50 (within 0.15% of the close price)

A bullish marubozu indicates strong buying momentum to the point that the bulls were ready to buy at every price point during the day such that the close is almost equal to the high of the day and the low is the day's open.



Fig 1 : A bullish Marubozu on the 13th of June (second to last candle) , Bollinger Bands and the resistance and support (which coincides with a double bottom formation) levels can be seen.

A risk taking trader would've initiated a trade on the day the bullish marubozu was formed itself after confirming at around 3:20 that a bullish marubozu was indeed being formed.

A risk averse trader would initiate a trade on the next day after confirming that it is a green candle day , again gaining confirmation at around 3:20 pm , which is satisfied in this case with a green candle on the 16th of June , Monday.

However , a single candlestick pattern is not enough to indicate a buy just yet. We thus continue with more indicators.

Moving Average Convergence and Divergence (MACD) :

The MACD is essentially used to visualise how the market is moving recently with reference to its overall movement over a longer time period. The time

periods I've used here are 12 day and 26 day (default for MACD) thus making the formula as follows :

$$MACD = 12 \text{ Day EMA} - 26 \text{ Day EMA}$$

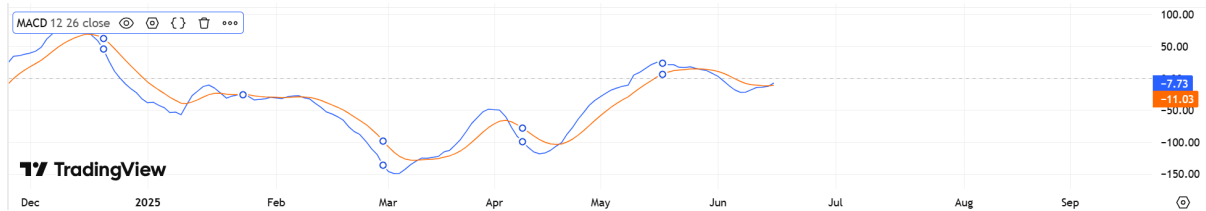


Fig 2 : MACD paired with 9 day signal line . Crossover seen on the 13th of June

A positive MACD value indicates bullish sentiment while a negative one indicates a bearish one.

Here I've paired the MACD with its 9 day EMA called the signal line to better signal (no pun intended) trade entry points . Whenever the MACD line crosses over the signal line , a bullish sentiment can be interpreted which we see here in the case of the MACD lines on the 13th of June.

Thus , yet another buy signal is generated further strengthening our case to buy TCS shares.

We still however need to properly define our stop-loss and target which can be achieved with the use of further indicators.

Resistance and Support Lines

As seen in fig. 1 , the resistance and support levels are drawn using the ellipses drawn on the sticky price regions. These levels are reassuring as :

- The resistance level is very close to the upper bollinger band , thus setting a clear picture for our target price
- The support level is close both to the low/open of the bullish marubozu and the lower bollinger band , thus further reinforcing the buy signal and at the same time defining a clear stop-loss.

Therefore the trade setup would be as follows :

Entry Price = Close price/price at 3:20 pm of entry day (depending on risk appetite)

Stop-loss = Low of Marubozu = 3393.20

Target = Upper Bollinger Band / Resistance Level = 3557.84 (approximately)

The trade is not exited until either one of the stop-loss or the target is hit.

Bollinger Bands :

The primary reason here for using Bollinger Bands as one of my technical indicators , is due to the sideways nature of the market , wherein bollinger bands work best (no risk of envelope expansion as in a trending market).

The lower bollinger band gives the most important signal here in this context as it lies close to the low/open of the bullish marubozu indicating that the price on the 13th of June was cheap and thus there's a bullish sentiment with the expectation for the price to stabilise once more.

The expectation as well is fulfilled on the next trading day , thus further giving the risk averse trader more confidence to go long .

The upper bollinger band , as already stated , is almost equal to the resistance level reinforcing the target price further.

Relative Strength Index :

The Relative Strength Index is a leading momentum indicator which helps in identifying a trend reversal. I've used a 14 day RSI here , appropriate to swing trading.

When the RSI reading is between 30 and 0, the security is supposed to be oversold and ready for an upward correction. When the security reading is between 70 and 100, the security is supposed to be heavily bought and is ready for a downward correction. The RSI however , as seen in our case , has a value of 54.68 , thus introducing a bit of hesitation into the decision to buy.

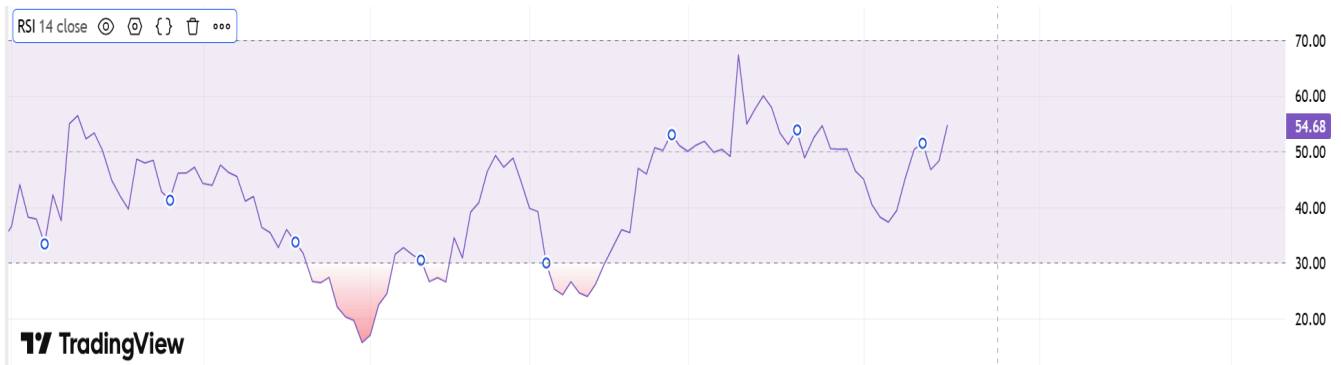


Fig 3 : 14 day RSI value plot

However such a value could also be attributed to the sideways nature of the market where the prices and thus buy/sell levels are just oscillating a lot more thus establishing no clear momentum.

Daily Volumes :

I believe the real hesitation in the buy signal here is generated from the volume analysis. Generally , it is advisable to buy/sell only on days of above average volumes(generally above the 10 day moving average).

In our case , the volume on both days , i.e , 13th and 16th of June has lower volumes than the calculated (manually) previous 10 day averages thus reducing the strength of the buy signal for both the risk taking and the risk averse trader.

Conclusion and The Final Trade Setup :

Since most of the technical indicators indicate a buy signal , I would suggest going long on the stock. However due to the hesitation due to the RSI and the Daily Volume figures , I'd equally suggest cutting down on the buy lot size to maybe half of the initial decided amount.

The entry price , stop-loss and the target would be as discussed above for setting up the trade and on the dates discussed , i.e , the 13th or the 16th of June looking at a swing trade.

